Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20554

In the Matter of	)	
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Delete, Delete, Delete	)	
	)	GN Docket No. 25-13
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To: The Commission:

COMMENTS

Comes now Charles M. Anderson, broadcast engineering consultant[1], with comments in response to the Commission's GN Docket No. 25-13 regarding the deletion and/or modification of radio broadcast rules.

The FM band is a mature aural service:

FM radio has existed in the United States some eighty-four years since the first commercial FM in Nashville, TN, W47NV (WSM-FM) began operation in the 42-50 MHz band on March 1, 1941. The system as we now know it dates to the 1945 shift to 88-108 MHz and the 1962 First Report and Order in FCC 62-866 establishing protected contours and allocation separations.

The Commission recently announced a 2025 total of 11,090 radio broadcast stations (6,663 FM + 4,427 AM). This number of stations and the sparse number of petitions for rule-making seeking the allotment of new channels validate the maturity of the band and justify a shift in allocations priority to improving existing facilities. Furthermore, the recent surrenders of AM and FM licenses is a clear indicator that broadcast station expansion has plateaued while there has been a dramatic increase in competition for audience and revenue from web-based services. There are now more than a sufficient number of allocations. Hence, it is time to utilize the remaining FM spectrum to improve existing facilities to better serve suburban and rural areas whose retail and residential areas have grown substantially in area and density causing additional "clutter" attenuation of AM and FM signals. Such facility enhancements are needed in order to remain viable in competition with the multiplicity of new services. This shift in emphasis is entirely consistent with the the original objectives of the 1962 order in FCC 62-866 which sought to balance service to individual communities while also recognizing the need to serve larger areas.

Many rules impede the ability of existing facilities to move to locations that better serve their market areas and, in many cases to relocate to existing towers when existing sites are lost or it is not economically viable to replace aging towers or

[1] Anderson has prepared the engineering portions of more than 1,000 FCC applications and petitions resulting in grants over a period spanning more than 40 years.

sustain existing land and tower leasing rates inflated by wireless services. Therefore, the following deletions or modification of rule sections are proposed.

FM:

§73.202. Delete the Table of Allotments and the current rule making procedure to allocate new channels. Utilize the same procedures used for the reserved band except use an auction window and set a minimum facility threshold for any new non-reserved band facility preventing the authorization of low power extreme directional stations such those granted in the reserved band. A 60 dBu service area minimum threshold of 1810 sq km, the area generated by a 3 kW/ 100 m HAAT facility, would seem reasonable for any new assignment. It is clear that there are already a sufficient number of existing allotments.

New rule. Add a section that deletes the allotment of any station whose license is revoked or surrendered. This will permit a more efficient use of the FM spectrum, unclutter the FM band and permit many facility improvements perhaps through acquisition.

§73.203 (a) + associated note. Delete. Table of allotments and spacings. The table of allocations has achieved its original purpose and is no longer needed.

§73.207(a), (b)(1) and (c.) Delete all spacing requirements and utilize the same contour protection processing now used for the reserved band. Eliminate the IF protections for all classes of reserved and non-reserved band facilities. This is an antiquated protection not required by modern receivers. A simple web search of modern receiver design indicates that many receivers do not use an IF frequency and those that do use a frequency other than 10.6 or 10.8 MHz. Also, there does not appear to be any documented evidence of actual IF interference. It is also noteworthy that the Canadian FM allocations rules do not provide IF protection (see their *BPR-3 Application Procedures and Rules for FM Broadcasting Undertakings*).

Any increase in facility class obtained using the contour overlap method should be required to show a 25% increase in 60 dBu population or area served.

§73.208. Delete entirely. No longer require reference points or distance separations. Contour protection has worked well for the reserved band. Reference points are obstacles to the improvements needed for many existing facilities. The class of station should only be defined by its ERP and HAAT as provided elsewhere in the rules. In many instances, an incremental power increase at the existing site to the next higher class will solve coverage limitations created by the original distance separation constraints for allotments as well as shifts in population and business density.

§73.209. Delete. Repetitive. Interference protection is provided in other sections.

§73.213(a) Modify. Change the protected contour for all pre-64 stations to 60 dBu for 1st, 2nd and 3rd adjacent channel to permit facility modifications and improvements. Class A Stations in Zone 1 are severely limited by 1st adjacent class Bs that may even have existed prior to FCC 62-866 which established the 54 dBu contour protection for

class Bs. The Commission's original protected contour was the 60 dBu (see Docket No. 6781, October 26, 1945).

§73.213 (b) and separations table. Delete IF protection. Modern receivers are not subject to IF interference. This rule is obsolete and prevents existing facility moves and improvements including the use of existing towers.

§73.215. Modify to add a provision permitting *Raleigh Waivers* for non-reserved band stations in the same manner that such waivers are permitted in the reserved band. Such small theoretical, new areas of "received interference" from 2nd and 3rd adjacent channel stations within an expanded service contour are more than offset by the increase in new population served. Furthermore, it is clear that modern receivers are not particularly susceptible to 2nd and 3rd adjacent channel interference. The Commission has even accepted the creation of co-channel interference in service areas to permit the establishment of differentiated service from boosters in the recent *Geocasting* action. *Raleigh* waivers do not cause any interference to existing service.

§73.215(e). Delete. This section is a major impediment to the use of existing tower sites. Given the difficulty and expense of constructing new towers, these restrictive tables have frequently blocked the use of a station's existing tower for upgrades or the use of other existing towers when sites are lost or become prohibitively expensive even though contour protection could have been easily achieved. It is especially burdensome to stations in smaller markets where the economics of new tower construction are frequently insurmountable. The directional antenna 15 dB maximum to minimum rule provides adequate protection from extreme short-spacings.

§73.313(d). Modify to utilize terrain out to the end of the predicted contour. The 3 to 16 km rule was established when terrain had to be derived manually from topographic maps. With today's terrain databases it would be relatively easy to use terrain data out to the end of predicted contours providing a much more accurate prediction. Commercial software providers such as V-Soft could easily modify their programs to accommodate this change. Existing overlaps generated by this modified method would be grandfathered. It is also noted that the entire television allocations scheme using Longley-Rice utilizes terrain out to the end of relevant signal levels.

§73.313(e)(f)(g)(h)((I). Delete. These sections are not currently used and are no longer needed.

§73.314. Eliminate the provision for FM measurements. Such measurements are not reliable and are not used in any allocations proceeding.

§73.315(a). Modify to 60 dBu. FM facilities serve market areas and the 60 dBu contour is quite sufficient in most areas to serve the urbanized centers. Reserved band stations are only required to serve 50% of the area or population of their communities of license with the 60 dBu contour.

§73.315 (b), (c), (d). Delete. Unnecessary.

§73.525. Delete channel 6 protection. This is a remnant of the analog television era which is no longer valid.

AM:

§73.24(h). Delete. Protection of the class A 0.1 mV/m contour is no longer needed. The 0.1 mV/m is not usable with the electrical noise level that now exists.

§73.30. Delete. No new facilities should be allocated to the expanded AM band. Its use should be limited to improvement of existing facilities. Applications for the expanded band frequencies should be permitted as minor changes in the same manner as all other facilities.

§73.35. Delete. Expanded band improvement factors are no longer relevant. Treat them like any other AM stations.

§73.37. Modify. Change the AM day protected contour for co-channel and 1st adjacent channel to 1 mV/m in view of the current documented electrical noise level. The adjacent channel overlap should be modified to 0 dB, the 2nd adjacent channel to 25 mV/m and 3rd adjacent channel protection should be eliminated altogether. The Commission previously proposed the 2 mV/m for co-channel and adjacent channel protection in *MB Docket No. 13-249* and the broadcast community currently values AM stations based on the 2 mV/m contour population. The 1 mV/m contour seems to be a reasonable compromise. Existing adjacent channel overlaps resulting from the change to 0.25 mV/m protection to the 0.5 mV/m make needed station relocations difficult and often require a major reduction in power. The NRSC bandwidth limitations on AM facilities make the 3rd adjacent channel protections obsolete.

Permit AM minor changes to any frequency in the AM band including the expanded band.

§73.182(a)1)(I)(A). Modify co-channel and adjacent channel protection to 0.5 mV/m for class A daytime facilities.

§73.182(a)(2) and (a)(3). Modify to 1 mV/m.

§73.182(h)(2). Modify night protection to 50% RSS as previously proposed in *MB Docket No. 13-249.*

AM&FM Ownership:

§73.3555. Modify current ownership limits to permit up to ten (10) facilities (AM or FM) in any market as long as the total in no more than 50% of the stations in any defined market. Change all market definitions to contour overlap methodology. Using ratings to define the market often does not reflect the actual geographical market area for many stations and artificially decreases the number of actual competing signals in

any market. Furthermore, ratings defined markets are subject to manipulation through the arbitrary selection of counties to be included.

FM Translators:

§74.1204(a). Delete third adjacent channel protection. 250 Watt translators do not pose any more of an interference threat to 3rd adjacent channel stations than do 100 Watt LPFMs. Furthermore, modern receivers are not vulnerable to 3rd adjacent channel interference. This writer is not aware of a single instance of 3rd adjacent channel interference from a translator.

§74.1204(g). Delete IF protection. Modern receivers do not experience this interference. It has been eliminated for LPFMs and 99 Watt translators. Clearly another 151 Watts will not pose a problem. This will permit many AM stations with 99 Watt translators to significantly improve their service especially at night.

§74.1205. Delete. No channel 6 interference protection is needed from FM translators. This is an outdated hold over from the analog television era.

§74.1233(a)(1)(I)(A). Modify to permit any two translators to exchange frequencies in contingent applications. This will be particularly helpful for AM stations whose translators obtained in the AM translator windows have inferior coverage. This modification will permit AM service to be improved by an exchange of frequencies with a co-owned translator or through a transaction with another translator licensee.

§74.1231(b). Modify to permit the use of satellite internet services to feed programming to fill-in translators. In many rural areas terrestrial internet service is limited and often unreliable.

Additional rule modifications:

Open periodic 250 mile AM translator move windows to permit AM stations to acquire their first or additional translators to better serve their market areas.The success of the previous translator windows in sustaining AM stations' community service is well documented.

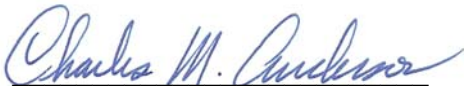
Codify the *Mattoon Waiver* which continues to be very helpful for AM stations.

Repeal Rural Radio.

Section 307(b)of the Communications Act entitled "Allocation of facilities" --- "In considering applications for licenses, and modifications and renewals thereof, when and insofar as there is demand for the same, the Commission shall make such distribution of licenses, frequencies, hours of operation, and of power among the several States and communities as to provide a fair, efficient, and equitable distribution of radio service to each of the same" (emphasis provided).

The FCC sometimes overlooks the importance of the consideration of the word demand for the particular community. Over time, rural communities lose population while new suburban communities grow significantly in population. But a broadcaster, faced with serving a community that can no longer support the station, is faced with the decision to either take the station silent or try to sell it for much less money. However, if the station could serve a suburban community and also just happens to cover at least 50% of an urbanized area with its proposed 70 dBu contour, it is prohibited in doing so. That is also the case if the proposed contour is not within the 50% of the urbanized area but theoretically could provide that service with a subsequent move.

This prohibition is especially onerous on AM stations which are much older and may have been viable 70 or 80 years ago, but due to population shifts, there is no longer a sufficient population to support the station. That is where the 307(b) factor of demand becomes relevant and determinative. It is long since time for a change on this urbanized area policy. Keep in mind, that with each move of a station from a rural to a more urban area, spectrum opens up which may allow a new station or another station to improve its service



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